

### REMARKS

Reconsideration of the present application is respectfully requested.

#### Interview Summary

The applicants had an interview with the examiner Asghar Bilgrami on April 25, 2008 at 3:00 pm EST. The participants discussed the proposed amendment to specifications and claims, which is substantially reflected above. The examiner agreed that the amendments would overcome the 35 U.S.C. § 101 rejections and the cited prior art in the Office Action dated January 28, 2008.

#### Summary of Amendments

Claims 1, 9, 12, 16, 22 have been amended. No claims have been added.

#### Summary of Office Action

Claims 9, 10 & 12 are rejected under 35 U.S.C. § 101 because the "thread" used in the claim language allegedly constitutes software only and allegedly is not shown to be embodied on a tangible medium. Claims 1-3, 5, 6, 8-12 & 16-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Srikantan et al (U.S. Pub No 20021005612 A1, hereinafter referred to as "Srikantan").

#### Discussion of Rejections

##### 35 U.S.C. § 101 Rejections

Claims 9, 10 and 12 are rejected under 35 U.S.C. § 101 because the "thread" used in the claim language allegedly constitutes software only and allegedly is not shown to be embodied on a tangible medium. Independent claim 9 and dependent

claim 12 have been amended to overcome the rejections. Therefore, the applicant respectfully requests that the rejections be withdrawn.

**35 U.S.C. § 103 Rejections**

Claim 1, as amended, recites:

1. (Currently amended) A method for reducing magnitudes of output traffic bursts in a streaming media cache, comprising:  
receiving a request from a first client system for a stream of media data, the stream of media data including a first streaming media data packet representing a particular portion of the stream of media data;  
receiving a request from a second client system for the stream of media data;  
receiving the first streaming media data packet from an upstream server, the first streaming media data packet including a delivery time at which the first streaming media data packet is scheduled to be delivered to each of the first and second client systems;  
pseudo-randomly selecting a first delay value and adding the first delay value to the delivery time of the first streaming media data packet to form a first modified delivery time for the first streaming media data packet;  
pseudo-randomly selecting a second delay value and adding the second delay value to the delivery time of the first streaming media data packet to form a second modified delivery time for the first streaming media data packet;  
modifying the first streaming media data packet with the first modified delivery time to form a first modified first streaming media data packet;  
modifying the first streaming media data packet with the second modified delivery time to form a second modified first streaming media data packet;  
outputting the first modified first streaming media data packet to the first client system to cause the first modified first streaming media data packet to be delivered to the first client system at the first modified delivery time; and  
outputting the second modified first streaming media data packet to the second client system to cause the second modified first streaming media data packet to be delivered to the second client system at the second modified delivery time to reduce magnitudes of output traffic bursts in the streaming media cache. (Emphasis added.)

The recited references do not disclose or suggest the "delivery time" included in a data packet and using pseudo-randomly selected delay values in streaming data packets to multiple clients, either individually or in combination.

First, the "time indices" within the media track described in Srikantan are distinguishable from the "delivery time" included in a data packet. Srikantan describes streaming media track to different clients at different time indices within the media [0008]. Different client streams may, at any given time, be streaming media from different time indices within the media track [0055]. Even though streaming media at different "time indices" within the media track may at first glance sound similar to different "delivery times", time indices (or a time index) within a media track are not a delivery time that specifies when the data should be delivered to the client. Further, in the description of the present application, there is a separate "presentation time" in a data packet that is similar to the "time indices" described in Srikantan [88]. The "presentation time" is the time within a media stream where the data packet is presented [88]. Therefore, the presentation time is different and separate from the "delivery time" in the present application. Streaming a media track to multiple clients at different "time indices" or "presentation times" within the media track is distinguishable from streaming data packets at different "delivery times" included in the data packets. Further, there is no motivation or suggestion for a person of ordinary skill in the art to add the element of the "delivery time" included in a data packet to the teaching of Srikantan, because apparently Srikantan is using different "time indices" within the media track for streaming media to multiple clients.

Second, the examiner suggests that the packets of a live or prerecorded broadcast cannot reach all the viewers at the same time, because doing so will create huge traffic bursts and potentially bring down the system/network, therefore they have to be sent out at different times for example,  $T$ ,  $T+1$ ,  $T+2$  ...  $T+N$ . Even if this is correct, this method is distinguishable from streaming data packets to multiple clients using pseudo-randomly selected delay values, as in claim 1. By selecting the delay values pseudo-randomly, the delay values are not fixed at  $T$ ,  $T+1$ ,  $T+2$ ...  $T+N$ . Using

predetermined different times  $T$ ,  $T+1$ ,  $T+2$  ...  $T+N$  requires fixing the number of delays ( $N$ ) and the delay increment ( $1, 2 \dots N$ ). In contrast, by selecting the delay values pseudo-randomly, the delay values are not sequential and there is no fixed delay increment. Therefore, the data packet delays are statistically spread out in a less predictable fashion, providing a more flexible way of spreading out the streaming traffic: i.e. the media server is not limited to  $N$  delay values and a predetermined sequential increment.

The examiner asserted that Srikantan on paragraph 26 states that the delivery of each frame or other unit of media must be performed in a specified order and within the certain period of time to maintain Quality of Service at an acceptable level (i.e. to avoid congestion as a result of all streams being delivered/transmitted at the same time). However, Srikantan does not teach pseudo-randomly selected delay values. Further, there is no motivation or suggestion for a person of ordinary skill in the art to add the element of pseudo-randomly selected delay values to the teaching of Srikantan.

For the above reasons, claim 1 and all claims dependent on it are thought to be patentable over the cited arts.

Independent claims 9, 16, and 22 recite similar distinctive limitations similar to those discussed above regarding In claim 1 that differentiate the claims from the cited art for similar reasons. Therefore, claims 9, 16, and 22 and all claims which depend on them are also thought to be patentable over the cited arts.

#### Dependent Claims

In view of the above remarks, a specific discussion of the dependent claims is considered to be unnecessary. Therefore, Applicants' silence regarding any dependent claim is not to be interpreted as agreement with, or acquiescence to, the rejection of such claim or as waiving any argument regarding that claim.

Conclusion

For the foregoing reasons, the present application is believed to be in condition for allowance, and such action is earnestly requested.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 50-2207, under Order No. 67272-8046.US1 from which the undersigned is authorized to draw.

Dated: 6/30/2008

Respectfully submitted,

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